

**IN THE SPECIFICATION:**

*Please amend the paragraphs beginning at page 1, line 33 as follows:*

--However, in the differential unit of the related art, an internal diameter of the spacers 123 and 125 is set to a larger value than that of the outer diameter of the drive pinion shaft 109 because the spacers 123 and 125 are rotatably mounted on the drive pinion 109. For this reason, the rotational ~~center~~ axis of the drive pinion shaft 109 does not match exactly with the ~~rotational-center~~ longitudinal axis of the spacers 123 and 125. And when the spacers 123,125 are interposed between the bearings 113, 115 and 117, there is a possibility that the rotational ~~center~~ axis C1 of the drive pinion shaft 109 does not match the ~~rotational-center~~ longitudinal axis C2 of the spacers 123 and 125.

If the spacers are interposed between the ~~spacers~~ bearings in this way ~~with the rotational center of the drive pinion shaft is offset from that of the spacers, the longitudinal axis of the spacer is offset with the rotational axis of the drive pinion shaft, and~~ the spacers become unbalanced components and imbalance arises with respect to the drive pinion shaft. For example, in the case where the mass of a spacer is set to 300g and a difference between the internal diameter of the spacer and the external diameter of the drive pinion shaft is set to 1 mm, the maximum ~~positional~~ radial offset between the rotational ~~center~~ axis of the drive pinion shaft and ~~that~~ the longitudinal axis of the spacer is 0.5 mm, and a maximum imbalance of 15 gcm arises.

*Please amend the paragraph beginning at page 2, line 36 as follows:*

With this differential unit, since there is restricting means for preventing an irregular gap therebetween in a ~~radial~~ radial direction so as to avoid a rotational eccentricity of the spacer and the drive pinion shaft and a vibration transmitting to the

motor vehicle. As a result, it is possible to reduce imbalance with respect to a drive pinion shaft.

*Please amend the paragraph beginning at page 3, line 35 as follows:*

Preferred embodiments of a differential unit of the present invention will be described in detail by referring to the following drawings. Omitted are the same reference numerals and repeated description.

*Please amend the paragraphs beginning at page 4, line 8 as follows:*

As shown in Fig. 1, the differential unit 1 ~~is enclosed in a case 5 with a differential cover (not shown) attached to an opening section of a differential carrier 3~~ has a case 5 including a differential carrier 3 and a cover (not shown) for closing an opening thereof. A drive pinion shaft 9 is ~~inserted into the inside of~~ accommodated in a part of the case 5. A drive pinion (bevel pinion) 11 integrally formed on one end of the drive pinion shaft 9, meshes with and a driven gear ~~(not shown)~~ 12 of a differential mechanism 10, which then engage with each other. ~~A differential mechanism case (not shown) is attached to the driven gear with bolts (not shown), and the driven gear is rotatably supported by in the differential mechanism case and the differential carrier 3.~~

The drive pinion shaft 9 is rotatably supported ~~on~~ in the differential carrier 3 by a single pilot bearing 13 and a pair of tapered roller bearings 15 and 17. A companion flange 19 for connecting the drive pinion shaft 9 to a linking drive shafts (not shown) such as propeller shafts shaft is spline fitted to the other end of the drive pinion shaft 9, and is ~~fixed by press fitting to~~ pressed against an inner race 13a of the pilot bearing 13 by the fastening force of a nut 21. In this way, the companion flange 19 is provided on an input

~~axis end side~~ of the differential unit 1. The ~~inside~~ inner space of the differential carrier 3 is ~~air-tightly~~ sealed by an oil seal 23 provided between the differential carrier 3 and the companion flange 19.

~~Cylindrical spacers~~ A tubular spacer 25 is and 27 are respectively interposed ~~not only~~ between the inner race 13a of the pilot bearing and an inner race 15a of the front side tapered roller bearing 15, and a tubular spacer 27 is interposed ~~but also~~ between the inner race 15a of the front side tapered roller bearing 15 and an inner race 17a of the rear side tapered roller bearing 17 ~~on such that~~ the drive pinion shaft 9 is covered with these spacers 25 and 27. The spacers 25 and 27 restrict attachment positions of the pilot bearing 13 and the tapered roller bearings 15 and 17.

*Please amend the paragraphs beginning at page 5, line 21 as follows:*

In this embodiment, as shown in Fig. 2, a protruding section 31 (position regulating means) protrudes towards the drive pinion shaft 9 at an inner side section facing the drive pinion shaft 9. And the protruding section 31 is integrally formed on the front side spacer 25 interposed between the inner races 13a and 15a. The protruding section 31 is formed in a curved shape so as to be generally convex along the overall central axial direction of the spacer 25, and the cross sectional shape is arched. Also, as the protruding section 31 protrudes towards the drive pinion shaft 9 along the entire inner peripheral direction of the spacer 25 (outer peripheral direction of the drive pinion shaft 9), the inner surface of the protruding section 31 comes into contact with or close to the outer surface of the drive pinion shaft 9. In this way, as the inner surface comes into contact with or close to the outer surface of the drive pinion shaft 9, the rotational ~~centers~~ axes of the drive pinion shaft 9 and the spacer 25 become substantially aligned, there is little ~~positional~~ radial

offset ~~between~~ therebetween.

In this embodiment, since the protruding section 31 facing the drive pinion shaft 9 is provided as radial position regulating means, the ~~positional~~ radial offset therebetween is reduced by the protruding section 31, the spacer 25 is prevented from becoming an unbalanced element. As a result, it is possible to decrease imbalance arising with respect to the drive pinion shaft 9.

Also, since the protruding section 31 is provided integrally with the spacer 25, there is no need to provide new components as the radial position ~~positional~~ regulating means, and it becomes possible to reduce the numbers of components and assembly steps. As a result, it is possible to simply minimize the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 at low cost.

*Please amend the paragraphs beginning at page 6, line 23 as follows:*

As shown in Fig. 3, a protruding section 41 is integrally provided at a specified position in the central axial direction of the spacer 25. For example, the protruding section 41 is at a substantially central position in the central axial direction of the spacer 25. The protruding section 41 is provided to protrude ~~thereof~~ from the inner surface of the drive pinion shaft 9 toward ~~so as to face~~ the drive pinion shaft 9 along the entire inner circumferential direction of the spacer 25 (outer circumferential direction of the drive pinion shaft 9) in the same way as shown in Fig. 2. The protruding section 41 is positioned between the drive pinion shaft 9 and the spacer 25, and the inner surface thereof comes into contact with or close to the outer surface of the drive pinion shaft 9. In this way, as the inner surface of the protruding section 41 comes into contact with or close to the outer

surface of the drive pinion shaft 9, the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 become substantially aligned, and therefore there is little ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25.

In this embodiment shown in Fig. 3 the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 is also reduced by the protruding section 41, and therefore it can reduce an imbalance arising with respect to the drive pinion shaft 9. Also, since the protruding section 41 is integrally provided with the spacer 25, similarly to the embodiment shown in Fig. 2, it is possible to simply prevent the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of spacer 25 at low cost.

Next modified example will be described based on Fig. 4. Fig. 4 is a schematic cross sectional drawing showing the essential elements in the modified example shown in Fig. 4. The modified example shown in Fig. 4 and the embodiment shown in Fig. 2 are different in that the radial position regulating means is provided separately from the spacer.

An O-ring 51 (radial position regulating means) is provided between the spacer 25 and the drive pinion shaft 9 as shown in Fig. 4. The O-ring 51 is arranged in the vicinity of an end section of the spacer 25 close to the tapered roller bearing 13. The O-ring 51 is made from metal or rubber.

The O-ring 51 contacts with the outer surface of the drive pinion shaft 9 and the inner surface of the spacer 25. In this way, the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 become substantially aligned due to the fact that the O-ring 51 contacts with the outer surface of the drive pinion shaft 9 and the

inner surface of the spacer 25, and therefore there is little ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25.

In this modified shown in Fig. 4, since there is the O-ring 51 between the spacer 25 and the drive pinion shaft 9 as radial position regulating means, the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 is reduced by this O-ring 51, and the spacer 25 is prevented from becoming an unbalanced element. As a result, it is possible to decrease imbalance arising with respect to the drive pinion shaft 9.

Also, since the O-ring 51 is provided separately from the spacer 25, there is no need for design modifications accompanying change in shapes of the spacer 25. And it is simply possible to realize a structure for preventing the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 at low cost.

*Please amend the paragraphs beginning at page 8, line 19 as follows:*

O-rings 51 are arranged at two ~~places~~ positions in the vicinity of ~~an~~ one end of the spacer 25 close to the tapered roller bearing 13 and in the vicinity of the other end of the spacer 25 close to the tapered roller bearing 15. By thus providing the O-rings 51 in a pair in the vicinity of the two ends of the spacer 25, it is possible to drastically reduce the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25.

In this modified example of this embodiment shown in Fig. 5, since there are a plurality of O-rings 51 (a pair in the vicinity of the two ends of the 25) between the spacer

25 and the drive pinion shaft 9 as a radial position regulating means, the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 is drastically reduced by the O-rings 51. And the spacer 25 is reliably prevented from becoming an unbalanced element.

As a result, it is possible to more drastically reduce the imbalance arising with respect to the drive pinion shaft 9. Also, since the O-rings 51 are provided separately from the spacer 25 in the same way as to the modified example shown in Fig. 4, it is simply possible to ~~realize to~~ prevent ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 at low cost.

*Please amend the paragraph beginning at page 9, line 11 as follows:*

Also, in the embodiments shown in Figs. 2 and 3, the protruding sections 31 and 41 are provided so as to protrude towards the drive pinion shaft 9 along the entire inner direction of the spacer 25 (outer direction of the drive pinion shaft 9), but there is no limiting in that way. It is also possible to have the structure with the protruding sections 31 or 41 provided at the specified places on the inner peripheral direction of the spacer 25 (outer peripheral direction of the drive pinion shaft 9) at three places spaced  $120^{\circ}$  apart or at 4 places spaced  $90^{\circ}$  apart, as long as the ~~positional~~ radial offset between the rotational ~~centers~~ axis of the drive pinion shaft 9 and the longitudinal axis of the spacer 25 is reduced.

*Please amend the paragraph beginning at page 9, line 30 as follows:*

In the differential unit of the present invention, since there is the position regulating means between the drive pinion shaft and the spacer, the ~~positional~~ radial offset between

the rotational ~~centers~~ axis of the pinion shaft and the spacer is reduced, and the longitudinal axis of the spacer is prevented from becoming unbalanced. Accordingly, it is possible to provide the differential unit capable of reducing imbalance arising with respect to the drive pinion shaft.

Please replace the abstract on page 12 of the specification with the new Abstract of the Disclosure submitted herewith on a separate sheet of paper.



**IN THE FIGURES:**

Pursuant to *M.P.E.P.* § 608.02(r), Applicants file with this Amendment a Letter that describes proposed changes to original Figs. 1, 6 and 7 in this application. Applicants respectfully request the Examiner's approval of the proposed changes.